Background of Harvest of the Month Impact Evaluation Survey

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Harvest of the Month (HOTM) is an intervention designed to increase fruit and vegetable consumption among low-income populations. It was developed by the California Nutrition Network for Healthy, Active Families (*Network*) for agencies contracted to promote fruit and vegetable consumption throughout the state.

The HOTM survey was developed using questions from various sources. The items were compiled to measure change in fruit and vegetable consumption and three factors that influence it. These factors included knowledge, food preferences, and self-efficacy. This document provides a brief background of the development of the survey.

Knowledge

Questions one through five measure knowledge. They were developed by a group of *Network* funded contractors from Orange County, CA that reviewed the HOTM materials and identified the essential pieces of knowledge that they felt students should gain after participating in the intervention. These questions were reviewed by the Research and Evaluation Unit of the Cancer Prevention and Nutrition Section of the CA Dept of Health Services.

Analysis: The correct answers should be added to get a summary score, which will range between 0 and 5. The correct answers are marked with a "1" in Table 1 below. The *Network* uses a paired t-test to analyze differences between pretest and posttest.

Table 1: Response coding for knowledge scale
We want you to tell us what you know about healthful eating. Please check ☑ your answer
1. Eating fruits and vegetables can help decrease your chances of getting heart disease or cancer. 1 ❑ True 0 ❑ False 0 ❑ Don't know
2. Fruits and vegetables that are high in Vitamin A are _____ in color. 0 ❑ Red and white 0 ❑ Blue and light brown 1 ❑ Yellow-orange and dark green 0 ❑ Brown and purple 0 ❑ I don't know
3. Almost all fruits and vegetables contain a lot vitamins and _____. 0 ❑ Protein 1 ❑ Fiber 0 ❑ Cholesterol 0 ❑ Fat 0 ❑ Don't know
4. Which of the following fruits and vegetables are grown in California: 0 ❑ Spinach 0 ❑ Apples 0 ❑ Pears 1 ❑ All of the above

5. Fruits and vegetables, like apples and pears, are best when eaten with the peel because that is where most of the fiber and antioxidants are.

1 ❑ True
0 ❑ False
0 ❑ Don't know

Food Preferences

Question six measures food preferences. These questions were adapted from a survey developed by Cullen et al.[1] The *Network*'s contractors may modify the list of fruit and vegetables so it includes the items they feature when implementing the intervention. The list may include more fruit and vegetables than those featured in HOTM. The *Network* analyzes featured and non-featured items separately.

Analysis: The *Network* codes the responses in the following manner. These are used to create a summary score for fruit, vegetables and juices separately.

1 = I do not know what this is
2 = I do not like this
3 = I like it a little
4 = I like it a lot

There are several was to analyze change in the summary scores. The *Network* conducts two. The first answers the question: Did participants taste develop a preference for fruit or vegetables that were previously unknown to them? This analysis includes all participants.

The second question is: Do preferences change for those who knew what the item was? This analysis excludes those individuals who reported, at pretest, not knowing what the item was, i.e., those with their answers coded as 1. The rationale is that those who cannot identify an item do not have a preference for it.

It would also be appropriate to look at the proportion of respondents that move from I don't know what this it to some other category. This could be done with a McNemar analysis.

Self-efficacy

Questions seven through eleven measure self-efficacy for eating. They were developed by Baronowski et al.[2] to assess a child's confidence that they can eat fruit and vegetables at breakfast, lunch, for snacks and at dinner. Analysis: The *Network* conducts a paired-t-test on summary scores for the subscales and all scales together.

Consumption

[1] Cullen K, Baranowski T, et al. Availability, accessibility, and preferences for fruit, 100% fruit juice, and vegetables influence children's dietary behavior. Health Educ Behav 2003; 30(5): 615-26.

[2] Baranowski T, Davis M, Resnicow K, Baranowski J, Doyle C, Smith M, Lin L, Wang DT. Gimme 5 fruit and vegetables for fun and health: Outcome Evaluation. Health Education & Behavior 2000; 27(1):96-111.

Questions 12-14 provide a measure of consumption. They were taken from the California Healthy Kids Survey Middle School Questionnaire, Module A, Core, Questions A15, A17, and A18. The results, expressed as number of times, should be reported separately for each question and for all questions combined.

The table below shows how the results of the questions might be displayed.

Table 1: Change in fruit and vegetable consumption and factors that influence it

	Pre-Test Mean	Post-Test Mean	Difference	P-Value
Knowledge (Q1-5)	2.63	2.80	0.17	0.001
Preferences				
Featured Fruits	21.87	22.27	0.40	0.006
Featured Vegetables	17.06	17.25	0.19	0.157
Self Efficacy (Q7-11)	47.38	47.66	0.28	0.005
Breakfast (Q7)	7.77	7.98	0.21	0.041
Lunch at school (Q8)	7.68	7.70	0.02	0.083
Lunch at home (Q9)	7.63	7.64	0.01	0.083
Snack (Q10)	16.83	16.86	0.03	0.032
Dinner (Q11)	7.47	7.48	0.01	0.083
Consumption (Q12-14)	3.01	3.27	0.25	0.001
Juice (Q12)	1.13	1.21	0.08	0.008
Fruit (Q13)	1.27	1.40	0.13	0.004
Vegetable (Q14)	1.07	1.11	0.04	0.224

The *Network* hopes this information is helpful. Please contact Andy Fourney if you have comments or questions.